

ABSTRACT:

A data processing system has a processor core, memory and a virtual machine interpreter. The virtual machine interpreter receives virtual machine instructions selected dependent on program flow during execution of a virtual machine program. The virtual machine interpreter generates native machine instructions that implement the virtual machine instructions for execution by the processor core. The virtual machine interpreter identifies an initial virtual machine instruction from a body of virtual machine instructions, where the body is expected to be executed repeatedly. The virtual machine interpreter records a correspondence between the initial virtual machine instruction in the body and a memory location in the memory and writes native instructions for the body into the memory from said memory location. The processor core executes the native instructions for the body and repeats execution of the native instructions for the body by executing the written native machine instructions for the body from memory starting from said memory location.

Fig. 1